

Attempted suicide with an axe: a hanged waiter with multiple healed chop wounds to the crown of the head

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Museum reference

The preserved skull is marked: “L No 692, M No 134, Date: 17th of June 1924.” The Institute of Forensic Medicine, as part of the School of Medicine at University of Belgrade—Serbia, was founded in 1923 by Professor Milovan Milovanović (1884–1948). The Institute’s building was finished in 1924, with the first student amphitheatre constructed for the Medical School. Professor Milovanović established a small forensic museum as part of the Institute, which has been in the possession of the majority of forensic autopsy records in the Institute’s archive since 1920. Some records are missing due to the military occupation of Belgrade during the Second World War. Fortunately, the autopsy report is existent for this museum exhibit.

Autopsy record

The date of autopsy was the 17th of June, 1924, catalogued as “L No. 692, Forensic Case SO No. 115” (Fig. 1). At the top of the autopsy report, there is a note: “Police investigation record No. 8764, Date: 15th of June, 1924, Belgrade—City District of Dorćol.” The autopsy report has been written by hand, by professor Milovanović himself, and records the deceased as a 48-year-old waiter, A.M.: “...Obese... the length of the body is 168 cm... In the crown of the head there is an almost rounded wound, 3 cm in diameter with irregular edges... Around it, there is a great number of more-or-less

recently-healed longitudinal wounds... There is a double transversal circular strangulation mark on the neck... above the larynx... The highest point of the mark is on the back of the neck... The skin of the face is livid, swelled, eyelids apart, conjunctives swollen, reddened, hyperemic... On the crown of the head on the outer table, there are many longitudinal and side-by-side superficial grooves, 1–2 mm in depth... The inner table is without injury... The brain and meninges are also without injury... The brain cortex of the frontal and parietal lobe is atrophic... There are no injuries to organs in the neck... The mucosa of the gullet and the windpipe is livid and swollen... The lungs inflated...”

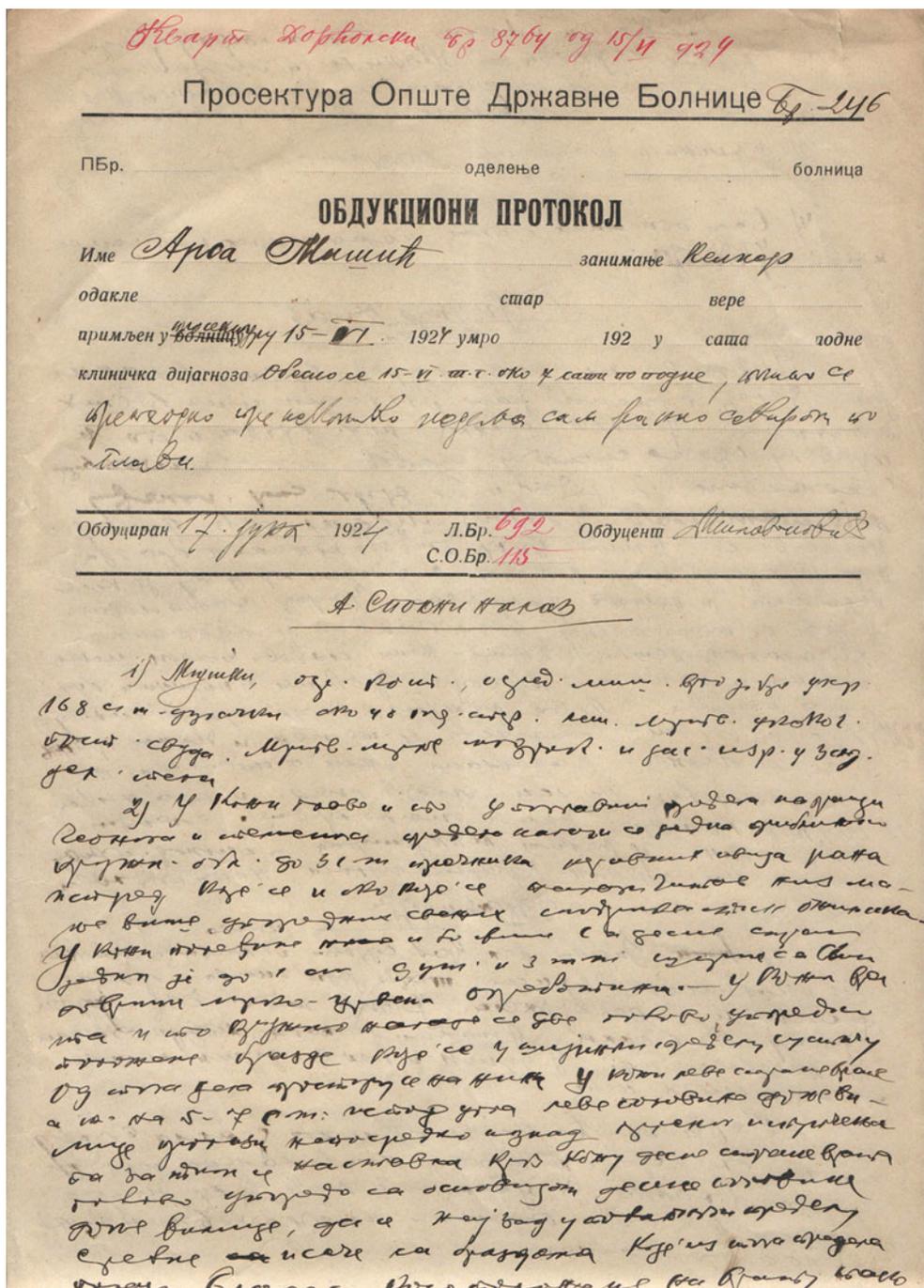
Professor Milovanović had studied medicine for 6 years in Vienna, from the years 1904–1910. After the First World War, he studied in Vienna for a further 2 years, so as to specialize in forensic pathology. He is the person who adapted basic forensic vocabulary to Serbian, according to Germanic models. The parts and sections of the autopsy record which he established are still in use at the Institute of Forensic Medicine.

Skull findings

Museum exhibit M No. 134 is a skull, with the diameters of 144 and 136 mm and a skull bone thickness from 2 to 6 mm. On the top of the skull, specifically on the vertex, there is an area on the outer table plate that is approximately 6 × 5 cm in diameter, with at least 26 longitudinal, parallel superficial grooves, from 1 to 2 mm in depth, and from 7 to 60 mm in length. In the middle of this area, small pieces of bone are missing, especially in the projection of the interparietal suture. Some of these grooves are superimposed (Fig. 2). There is no damage on the inner surface of the skull (Fig. 3). All these observations are noted well in the autopsy record.

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Fig. 1 The first page of the original autopsy report



Present examination has also revealed a linear fracture of the right section of the frontal bone, near to the frontoparietal suture and beginning from the vertex, where the skull is the thinnest (Figs. 2, 3). It could be assumed that this fracture is postmortal in origin, since it had not been noted during the autopsy. It is possible that the skull was damaged when the Institute was moved to a new building in 1980.

Cause of death

In the final section of the autopsy report, there is an “Opinion” about the cause of death. It is as follows: “I. The death was violent in origin and was probably due to hanging. II. The hanging, as well as the head injuries, was probably suicidal in manner.” (Fig. 4)



Fig. 2 The outer aspect of the skull: note the longitudinal parallel superficial grooves of the outer table plate of the vertex



Fig. 3 The inner aspect of the skull (Museum exhibit M No. 134)

Professor Milovanović wrote the autopsy report, including this last section, in fountain pen, in an old-fashioned style, in ornate flowery Cyrillic letters, and in slightly pseudo-gothic Germanic font.

Case history

In addition to the general data about the deceased, the autopsy records of Professor Milovanović contain a

heading with information concerning the circumstances of death and the medical history of the deceased, which was collected from the deceased's relatives or close friends. Therein, there is such data for this case: "He hanged himself on the 15th of June, the current year [1924], about 7 p.m. Several weeks ago he hit himself in the head with an axe."

A case history of the deceased is still taken today, in the form of a questionnaire which relatives or others close to him/her fill out. This data is collected and archived with the rest of the autopsy records.

Discussion

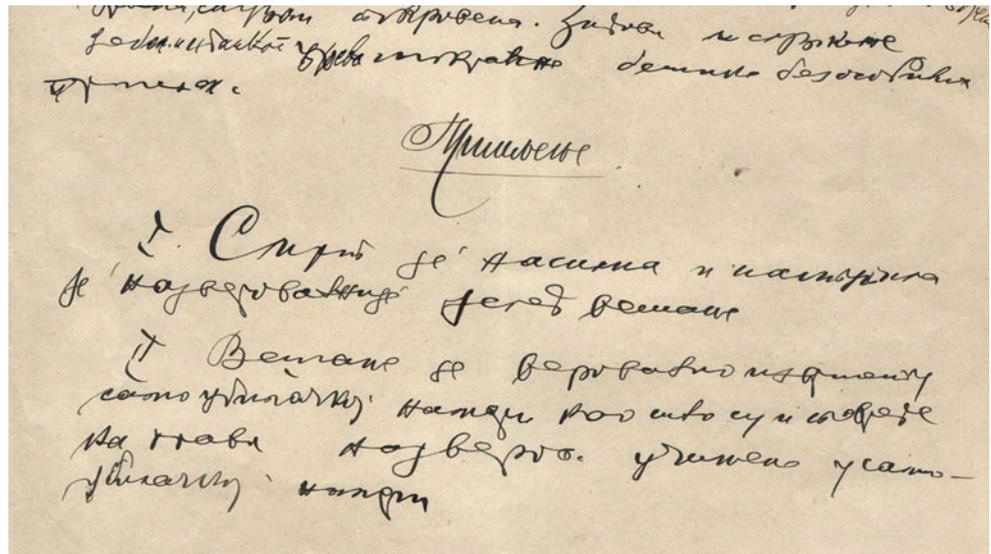
A cut or incised wound occurs whenever a sharp-edged object is drawn over the skin with sufficient pressure to produce an injury that is longer than it is deep [1, 2]. However, an axe is a chopping object, and a blow to the head with it causes gaping to appear; this means, a straight smooth-bordered wound of the scalp and a straight sharp defect of the skull along the course of the gush [1, 3]. While most chop wounds appear to be incised, when there is a combination of cutting and crushing, they can have both incised and lacerated characteristics [4, 5]. Self-inflicted penetration of the skull with a sharp-edged object such as an axe is quite rare [5].

The appearance of suicidal cuts is usually characteristic: they are multiple and parallel, sometimes symmetrical, with repeated tentative incisions at the same location, which specifically indicates repeated trials before the build-up of sufficient courage for a final deep gash. Such superficial cuts are referred to as "hesitation wounds" [1, 6, 7].

In the presented case, there are numerous superficial, longitudinal, side-by-side, partially healed chop wounds, placed in a relatively small area of the vertex. Consequently, some of wounds must have been superimposed. The large number of lesions of the parietal bone indicates that most of the wounds included the complete thickness of epicranium. The soft tissue was therefore chopped and smashed, but this was missed at the autopsy, as there was "an almost rounded wound 3 cm in diameter." The great number of lesions are indicative of hesitation in attempted suicide. It is difficult to say if the deceased held the axe in his hands and drew it in many times over the crown of his head, or if he struck his head multiple times against an axe that had been secured somehow. The blows were of a low velocity and there were neither intracranial lesions nor lesions of the inner table plate.

In cases of suicide, if the first attempt fails, becomes unexpectedly painful, or does not cause death quickly enough, another mode may be chosen—these are unplanned

Fig. 4 The last section of the autopsy report: “Opinion”



complex suicides. This is usually the case when sharp instruments are used to inflict cuts or stabs [8]. A longer period of time may also occur between an individual's suicide attempts, in this case, it appears to have been several weeks.

The rapid nature of death by hanging makes it a commonly used method of suicide. According to the localization and the direction of the furrow, this was a typical hanging, since a knot was present over the occipital region [9]. Depending on the type of noose, the groove produced by the pressure of the noose on the neck may be deep, and the skin shrunken, dry, brown, or leather-like [1]. However, the furrow is postmortem in origin. In the case under consideration, there were no vital signs of hanging; rather, merely general autopsy signs of asphyxia, such as acute lung emphysema, as well as lividity, and hyperemia, as well as a swelling of the face-skin and conjunctivae [2, 9].

Professor Milovanović founded the Institute of Forensic Medicine's Library with its collection of approximately 1,300 text-books, the majority of which have an author's dedication, are bound in leather, and are in German and French. Moreover, in addition to several medical text-books, as well as 48 papers published in Serbian, German and French medical journals, Professor Milovanović also published a famous monograph in 1929, entitled "Suicide". He wrote: "There is no suicide without motivation... There are only suicides with deep-hidden motivation. Sometimes the motivation sinks into the grave with the deceased... but, always, unconditionally, there had been a motivation for suicide...."

In the presented case, it is not known why the deceased waiter committed suicide. To use Professor Milovanović's words, the reason *sank into the grave* with him.

Postscript

In 1948, professor Milovanović himself committed suicide, under obscure circumstances. His last will, which was redrawn a few months prior, was found, and in it he left his personal belongings to the Institute's staff, his personal books to the Library of the University, two-thirds of his savings to the Medical School to "support students in publishing their papers," and one-third to the Belgrade Opera, to "support the orchestra's poor members." He died single, without a family. The reason he committed suicide remains unknown.

Since 2008, the Institute of Forensic Medicine in Belgrade has been named after Professor Milovan Milovanović.

Notice

The data about the professional and private life of Professor Milovan Milovanović has been taken from the book *Chronicles of Forensic Medicine in Belgrade*, written by Professor Snežana Veljković and published in Belgrade, in 2009.

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